CLAIMS

1. A document analysis method to detect BW and color areas comprising the following steps:

step 1) getting an input image data to be split into elementary unit of information;

step 2) analysing the input data to get a colorfulness indicator of each elementary unit of information of the input data;

step 3) assigning each elementary unit of information to either a BW layer or a color layer depending on the colorfulness indicator of said each elementary unit of information;

step 4) determining, in order to obtain a desired format for the output data, either to select or to combine the BW and color layers.

2. A document analysis method according to claim 1, characterized in that the step of analysing the input data further comprises the step of getting the input data into a Chroma space format.

3. A document analysis method according to claim 1, characterized in that it further comprises the step of converting the input data from the RGB format to a Chroma space format.

4. A document analysis method according to claim 2, characterized in that it further comprises the step of down sampling a chroma indication channel.

5. A document analysis method according to claim 4, characterized in that it further comprises the step of applying a threshold or a rule for the colorfulness indicator to the down sampled data.

6. A document analysis method according to claim 5,

characterized in that it further comprises the step of labeling ON the elementary information having a colorfulness above the threshold and OFF the elementary information having a colorfulness lower than the threshold.

7. A document analysis method according to claim 6, characterized in that the threshold value depends on the final device which receive the image data.

8. A document analysis method according to claim 7, characterized in that the BW elementary information are employed to assemble a first layer (TEXT) containing the portion of text comprised in the input data and the color elementary information are employed to assemble a second layer (IMAGE) containing the portion of image comprised in the input data.

9. A scanning device to acquire documents characterized by comprising an input that receives an input image data, and is connected to a layer creator component, which in turn outputs a first and a second layer, such layers having different data compression rates.

10. A scanning device according to claim 9, characterized in that said first layer assembles BW data and said second layer assembles color data.

11. A scanning device according to claim 10, characterized in that said layer creator component comprises a threshold block connected in series to a compressor.

12. A scanning device according to claim 11, characterized in that said compressor is a G4 compressor.

13. A scanning device according to claim 12, characterized in that said layer creator component

further comprises a RGB to HLN converter, having an output channel connected to a series of a down scale device, an histogram and threshold selector, a look-up-table, a blob analysis block, a fill regions block and a further compressor.

14. A scanning device according to claim 13, characterized in that said further compressor is a JPEG compressor.

15. Method for acquiring a document based on the analysis of the content of the document itself, comprising the following steps:

- getting an input image data;

- creating a first layer containing the image information in a color format;

- creating a second layer containing the image information in a BW format;

- managing the first and the second layers in order to obtain a desired format for an output document.

16. Method for acquiring a document as claimed in Claim 15, characterized in that the image information contained in the first layer has a resolution lower that the image information contained in the first layer.

17. Method for acquiring a document as claimed in Claim 16, characterized in that the sum of a size of the first layer plus a size of the second layer is lower than a size of said first layer at the second layer higher resolution.

18. Method for acquiring a document as claimed in Claim 15, characterized in that the second layer is used for managing text information.